

California Influenza and Respiratory Disease Surveillance for Week 8 (February 20-26, 2011)

Note: This report includes data from many different sources of influenza surveillance, including syndromic surveillance, laboratory surveillance, voluntary case-based reporting of severely ill cases and mandatory reporting of influenza deaths for cases ages 0-17 years. The information contained in this report should be viewed as a “snapshot” of influenza activity for each surveillance week, and should not be considered as population-based data or representative of all California jurisdictions.

Overall influenza activity in California for Week 8 remains “widespread.”*

Influenza and Other Respiratory Disease Highlights (Week 8)

- With 81 sentinel providers reporting Week 8 data so far, influenza-like illness (ILI) activity decreased by 1.2% compared to the previous week. The ILI activity in California for Week 8 was “low.”**
- Of 285 specimens tested by polymerase chain reaction (PCR) statewide by the Respiratory Laboratory Network (RLN) during Week 8, 155 (54.4%) were positive for influenza; of these, 109 (70.3%) were influenza A and 46 (29.7%) were influenza B. Of the 109 influenza A specimens, 48 (44.0%) were subtyped as A (H3) and 61 (56.0%) were subtyped as A (2009 H1N1).
- The percentage of influenza detections in sentinel laboratories remained about the same during Week 8; 864 (29.0%) of 2,975 specimens tested were positive compared to 1,033 (29.3%) of 3,528 specimens tested during the previous week.
- Of 23 influenza A (2009 H1N1) specimens and 41 influenza A (H3N2) specimens tested by the CDPH Viral and Rickettsial Disease Laboratory (CDPH-VRDL), no neuraminidase-inhibitor resistance has been found.
- During Week 8, the proportion of specimens tested statewide by RLN and sentinel laboratories that were positive for respiratory syncytial virus (RSV) continued to decrease; 436 (16.9%) of 2,584 specimens tested were positive, compared to 601 (19.2%) of 3,138 specimens tested during the previous week.

*Widespread activity is defined by the CDC as “outbreaks of influenza or increases in ILI cases and recent laboratory-confirmed influenza in at least half the regions of the state with recent laboratory evidence of influenza in the state.”

**Activity levels range from minimal to high and are based on the percent of outpatient visits due to ILI compared to the average percent of ILI visits that occur during spring and fall weeks with little or no influenza virus circulation.

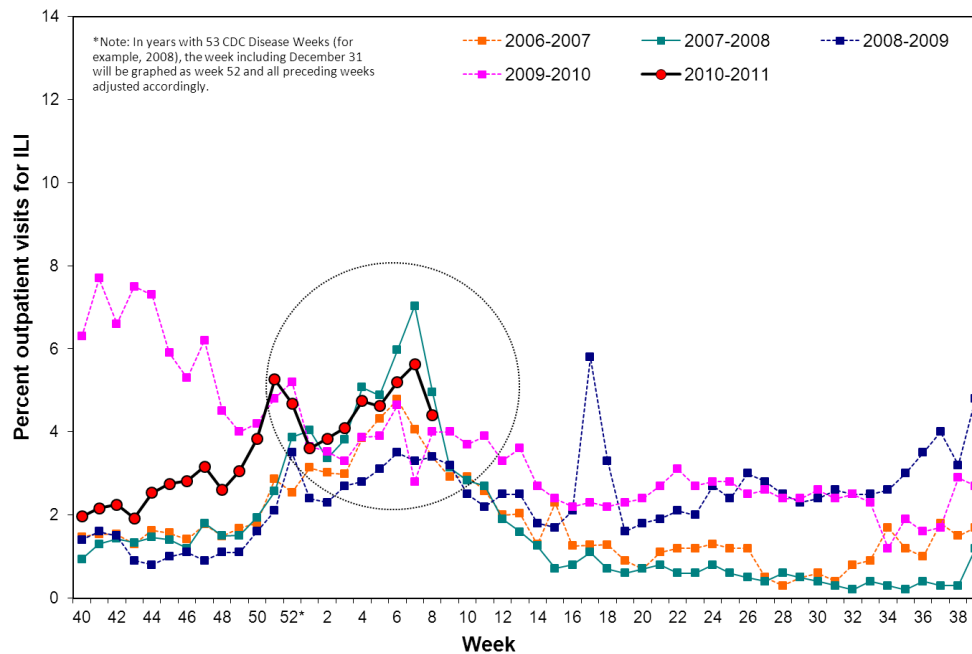
A. Syndromic Surveillance

CDC Influenza Sentinel Providers

Sentinel providers report the number of outpatient visits for ILI and the total number of visits per week. These data are reported weekly as a percentage of total visits due to ILI. The ILI case definition is fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat in the absence of a known cause other than influenza.

The percentage of ILI visits decreased during Week 8 (4.4%) compared to the previous week (5.6%). A total of 81 sentinel providers reported data in Week 8 compared to an average of 127 providers reporting in prior weeks. Some ILI visits during recent weeks may not yet be reported.

Figure 1. California Sentinel Providers – Influenza-Like Illness Visits, 2006-2011



B. Laboratory Update

1. Respiratory Laboratory Network (RLN) Surveillance Results

The RLN is composed of 28 local public health laboratories that offer PCR testing for influenza A and B and testing using the R-mix shell vial culture system to identify five other common respiratory viruses (RSV, adenovirus, and parainfluenza virus type 1-3).

The percentage of specimens that tested positive for influenza decreased in Week 8 (54.4%) compared to Week 7 (63.0%). Of 285 specimens tested by the RLN during Week 8, 109 (38.2%) were positive for influenza A and 46 (16.1%) were positive for influenza B (Table 1). Of the 109 specimens that tested positive for influenza A, 48 (44.0%) were subtyped as influenza A (H3) and 61 (56.0%) as influenza A (2009 H1N1).

Table 1. Respiratory Laboratory Network (RLN) Surveillance Results from Selected Laboratories*, February 20–26, 2011

	Total RLN*	Northern CA	Central CA	Southern CA
	No. (%)	No. (%)	No. (%)	No. (%)
Number of specimens tested by PCR	285	93	38	154
Influenza A	109 (38.2) [†]	36 (38.7) [†]	19 (50.0) [†]	54 (35.1) [†]
A (seasonal H1N1)	0 (0.0) [‡]	0 (0.0)	0 (0.0)	0 (0.0)
A (H3)	48 (44.0) [‡]	10 (27.8) [‡]	7 (36.8) [‡]	31 (57.4) [‡]
A (2009 H1N1)	61 (56.0) [‡]	26 (72.2) [‡]	12 (63.2) [‡]	23 (42.6) [‡]
Influenza B	46 (16.1) [†]	6 (6.5) [†]	3 (7.9) [†]	37 (24.0) [†]
Number of specimens tested by R-mix	30	2	26	2
RSV	3 (10.0) [¶]	1 (50.0) [¶]	2 (7.7) [¶]	0 (0.0)
Other respiratory viruses	1 (3.3) ^{¶,††}	0 (0.0)	1 (3.8) [¶]	0 (0.0)

* RLN labs reporting Week 8 data, by region:

Northern CA: Contra Costa, Humboldt, Placer, Sacramento, San Francisco, Santa Clara, Shasta, Sonoma

Central CA: Fresno, Monterey, San Joaquin, Stanislaus, Tulare

Southern CA: Imperial, Kern, Long Beach, Los Angeles, Orange, Riverside, San Bernardino, San Luis Obispo

[†] Percent of total specimens tested for influenza by PCR

[‡] Percent of influenza A positives

[¶] Percent of total specimens tested by R-mix

^{††} Parainfluenza type 3 (1)

2. Sentinel Laboratory Surveillance Results

Sentinel laboratories are a network of clinical, commercial, academic, and hospital laboratories located throughout California that provide weekly data on the number of laboratory-confirmed influenza and other respiratory virus detections and isolations.

Table 2 shows positive influenza and RSV results reported from sentinel laboratories during Week 8. The percentage of specimens that tested positive for influenza remained about the same in Week 8 (864 of 2,975; 29.0%) compared to the previous week (1,033 of 3,528; 29.3%). Of the 864 influenza positive specimens, 587 (67.9%) were positive for influenza A and 277 (32.1%) were positive for influenza B. Of 2,554 specimens tested for RSV during Week 8, 433 (17.0%) were positive. This was a decrease from the previous week, when 598 (19.3%) of 3,092 specimens tested positive for RSV.

Table 2. Influenza and other respiratory virus detections from Sentinel Laboratories, February 20–26, 2011

	No. (%)
Number of sites reporting	63
Total specimens tested for influenza	2,975
Influenza	864 (29.0)*
Influenza A	587 (67.9)**,†
Influenza B	277 (32.1)**,‡
Total specimens tested for RSV	2,554
RSV	433 (17.0)*,¶

* Percent of total specimens tested

** Percent of specimens positive for influenza

Total number of positive lab results reported, by local health jurisdiction of patient's residence and/or site location:

† Alameda (73), Contra Costa (46), Fresno (66), Imperial (11), Kern (4), Kings (1), Long Beach (25), Los Angeles (9), Madera (11), Marin (8), Merced (2), Orange (3), Placer (17), Sacramento (66), San Diego (21), San Francisco (28), San Joaquin (21), San Mateo (22), Santa Clara (67), Shasta (1), Solano (40), Sonoma (18), Stanislaus (23), Tulare (3), Yolo (1)

‡ Alameda (49), Contra Costa (18), Fresno (28), Imperial (11), Kern (5), Kings (1), Long Beach (9), Los Angeles (8), Madera (3), Marin (4), Merced (3), Placer (3), Sacramento (20), San Diego (6), San Francisco (7), San Joaquin (7), San Mateo (7), Santa Clara (54), Solano (6), Sonoma (12), Stanislaus (14), Tulare (2)

¶ Alameda (45), Contra Costa (28), Fresno (57), Imperial (17), Kern (5), Kings (3), Long Beach (45), Los Angeles (1), Madera (5), Marin (3), Merced (1), Napa (1), Nevada (1), Placer (20), Plumas (1), Sacramento (64), San Diego (33), San Francisco (8), San Joaquin (13), San Mateo (13), Santa Clara (39), Santa Cruz (1), Solano (16), Sonoma (4), Stanislaus (6), Tulare (3)

3. Combined RLN and Sentinel Laboratory Surveillance Results

Figures 2 through 4 summarize the combined laboratory data from both the RLN and the sentinel laboratories. Figure 2 shows that influenza detections decreased slightly in Week 8 (31.3%) compared to the previous week (32.7%). A total of 1,019 samples tested positive for influenza in Week 8, including 696 (68.3%) influenza A and 323 (31.7%) influenza B (Figure 3). Figure 4 shows that the percentage of RSV detections continues a downward trend that began in Week 1 (January 2–8, 2011).

Figure 2. Influenza detections in Respiratory Laboratory Network and Sentinel Laboratories, 2006-2011

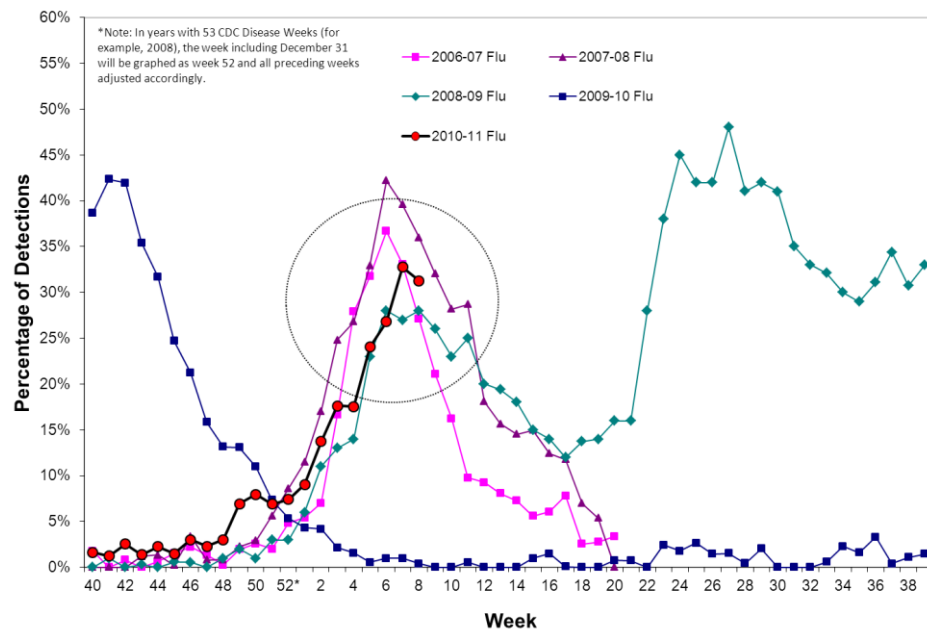


Figure 3. Influenza detections in Respiratory Laboratory Network and Sentinel Laboratories, by Influenza Type

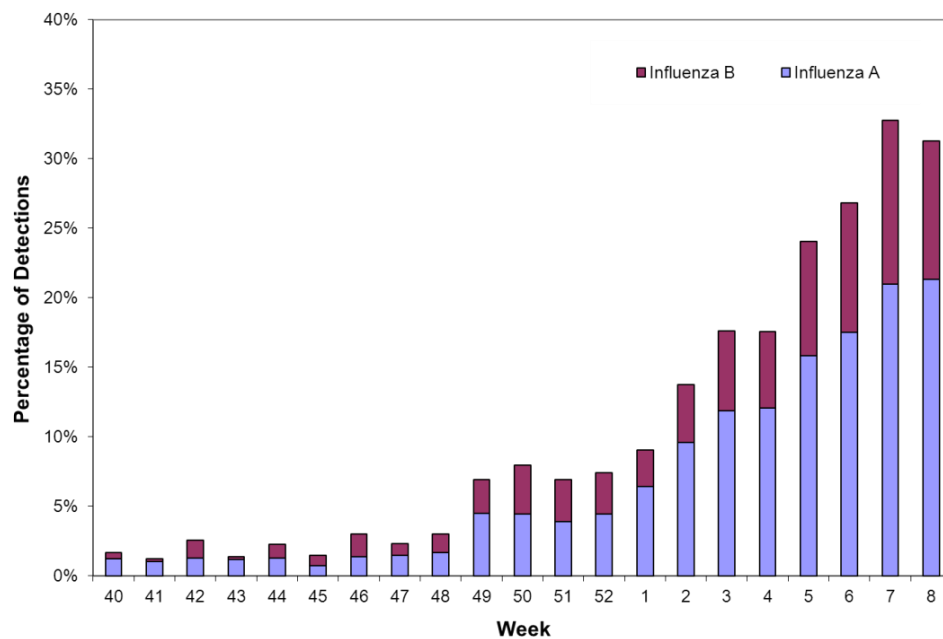
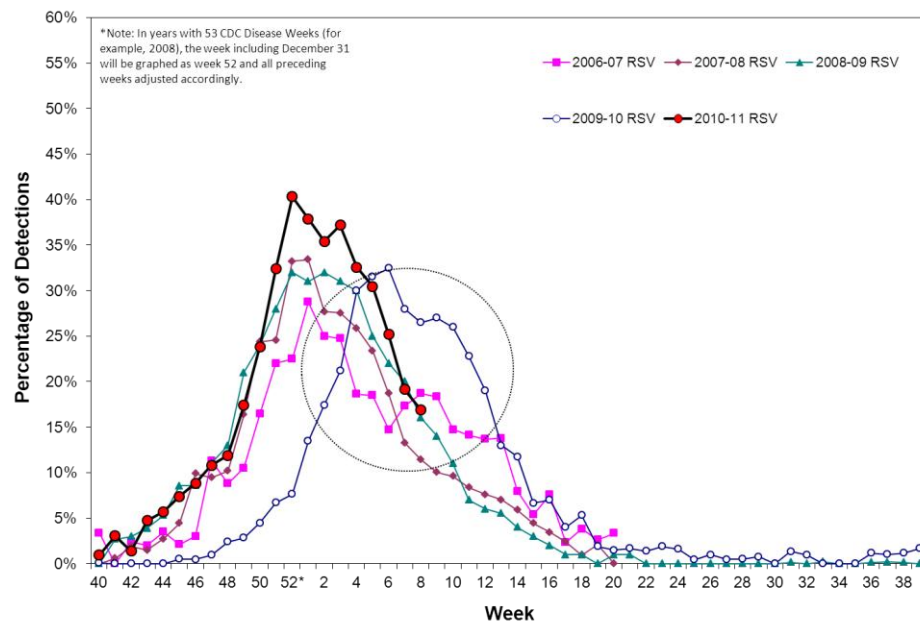


Figure 4. RSV detections in Respiratory Laboratory Network and Sentinel Laboratories, 2006-2011



For questions regarding this report or influenza surveillance and reporting in California, please email InfluenzaSurveillance@cdph.ca.gov. This account is monitored daily by several epidemiologists.

To obtain additional information regarding influenza, please visit the CDPH influenza website at [http://www.cdph.ca.gov/HealthInfo/discond/Pages/Influenza\(Flu\).aspx](http://www.cdph.ca.gov/HealthInfo/discond/Pages/Influenza(Flu).aspx).